We claim:

1. A system operable in a forward state and a reverse state for engaging and disengaging a friction element, comprising:

a source of line pressure;

a control valve hydraulically connectable to the line pressure source and exhaust pressure source, for producing control pressure in the forward state; and

a friction element hydraulically connected to the line pressure source in the reverse state, and hydraulically connected to the control valve and control pressure in the forward state.

2. The system of claim 1, wherein the control valve is hydraulically connected to the line pressure source in the forward state, and the control valve is hydraulically disconnected from the exhaust pressure source in the reverse state.

3. The system of claim 1, wherein the line pressure source has a greater magnitude of pressure than a magnitude of control pressure.

4. The system of claim 1, further comprising:

a second control valve hydraulically connectable to the line pressure source and exhaust pressure source, for producing a second control pressure in the forward state; and

a second friction element communicating with the line pressure source in the reverse state, and communicating with the second control pressure in the forward state.

5. The system of claim 1, wherein second control valve is hydraulically connected to the line pressure source in the forward state, and the second control valve is hydraulically disconnected from the exhaust pressure source in the reverse state.

6. The system of claim 1, wherein the line pressure source has a greater magnitude of pressure than a magnitude of second control pressure.

7. A system for controlling engagement and disengagement of a friction element, comprising:

a source of line pressure;

a source of exhaust pressure;

a manual valve having a forward state and a reverse state, connected to the exhaust pressure source and line pressure source and including a first outlet and a second outlet, for opening and closing communication between said outlets and said pressure sources in response to changes in the states;

a friction element communicating with the line pressure source through the manual valve in the reverse state; and

a control valve including a port communicating with the friction element, the control valve producing control pressure at the port when the manual valve is in the forward state.

8. The system of claim 7, wherein the control valve communicates with the line pressure source, and communicates with the exhaust pressure source through the first outlet in the forward state.

9. The system of claim 7, wherein the friction element communicates with the line pressure source through the second outlet in the reverse state.

10. The system of claim 7, wherein the manual valve includes a third outlet, the system further comprising:

a second friction element communicating with the line pressure source through the third outlet in the reverse state.

11. The system of claim 7, wherein the manual valve includes a third outlet and a fourth outlet, the system further comprising:

a second friction element communicating with the line pressure source through the third outlet in the reverse state; and

a second control valve communicating with the line pressure source through the fourth outlet when the manual valve is in the forward state, communicating with the exhaust pressure source through the first outlet when the manual valve is in the forward state, including a second port communicating with the second friction element, the control valve producing control pressure at the second port when the manual valve is in the forward state.

12. The system of claim 7, wherein the manual valve includes a third outlet and a fourth outlet, the system further comprising:

a second friction element communicating with the line pressure source through the third outlet when the manual valve is in the reverse state; and

a second control valve including a second port communicating with the second friction element, the control valve producing control pressure at the second port when the manual valve is in the forward state.

13. A system for controlling engagement and disengagement of a friction element, comprising:

a source of line pressure;

a source of exhaust pressure;

a manual valve including the chamber hydraulically connected to the exhaust pressure source and line pressure source, a spool moveable in a chamber between a forward state and a reverse state including

a first land for opening communication to the exhaust pressure source through the manual valve in the forward state and for closing said communication in the reverse state,

a second land for opening communication to the line pressure source through a first outlet of the manual valve in the reverse state and for closing said communication through the first outlet in the forward state;

a friction element communicating with the line pressure source through the manual valve in the reverse state; and

a control valve including a port communicating with the friction element, the control valve producing control pressure at the port when the manual valve is in the forward state.

14. The system of claim 13, wherein the control valve communicates with the line pressure source, and communicates with the exhaust pressure source through the manual valve in the forward state.

15. The system of claim 13, wherein the friction element communicates with the line pressure source through the manual valve in the reverse state.

16. The system of claim 13, wherein the manual valve includes a third land for opening communication to the line pressure source through the manual valve in the reverse state and for closing said communication in the forward state, the system further comprising:

a second friction element communicating with the line pressure source through the manual valve in the reverse state.

17. The system of claim 13, wherein the second land further opens communication through a second outlet in the manual valve to the line pressure source in the forward state, and closes said communication through the second outlet in the reverse state, the system further comprising:

a second friction element communicating with the line pressure source through the manual valve in the reverse state; and

a second control valve including a second port communicating with the second friction element, the control valve producing control pressure at the second port when the manual valve is in the forward state.